GRACO

Reactor® IP

In-Plant Polyurethane Foam Processing Systems

PROVEN QUALITY. LEADING TECHNOLOGY.

Reactor IP Series

Entry-level unit designed for rigid and flexible in-plant foam applications

Depend on the Reactor IP for outstanding performance, accuracy and repeatability

Take total control of your in-plant foam applications with the new Reactor IP proportioner from Graco. The Reactor IP is engineered for accuracy in pouring – with advanced controls and technologies for unparalleled performance.

- Lets you program up to 25 different shot settings and five shot sequences
- Accurately measures volume of the material poured, providing repeatable shot sizes, part after part
- Available in two models, the Reactor IP offers flow rates of 25 or 50 lb/min (11.3 and 22.6 kg/min)
- Easy clean-up – no gun purging, no solvent flush
- Easy start-up and shutdown

Digital User Interface

Separate temperature and motor controls allow you to quickly set, maintain and monitor machine performance

- Temperature settings
- Cycle counter
- Pressure readout
- ISO rod park feature lengthens pump seal life by preventing ISO reaction

New Local Control Module

Allows up to 25 different pre-programmed volume settings and five shot sequences

Remote Mountable Controls

- For total control over temperature and pressure
- Allows you to control material temperature in three heating zones (ISO, resin, hose) for improved yield

User-Defined Controls

- Pressure imbalance control prevents off-ratio conditions – offers imbalance detection between 100 to 999 psi (7 to 69 bar) in 100 psi (7 bar) increments
- Programmable standby mode shuts the motor and hydraulic pump down after a period of inactivity – reducing system wear and protecting the unit from overheating

Circulation Valves

Designed to reduce isocyanate crystallization

Horizontal Pumpline

Robust pump design provides extended seal life. Different ratios can be achieved by combining different rod pump sizes. Ratio range is from 4.6:1 to 1:4.6. 81 pump combinations are available.

New Linear Transducer

Provides accurate volume repeatability from part to part

Hybrid Heater Design

Heats material quickly and maintains temperature set points – even when pouring at maximum flow rates

Optional Data Recorder

Records and compares material temperatures and pressures for critical applications

Electrical Control Box

Provides an easy connection between the local control module, pour gun and Reactor IP

Advanced controls

Local control module for precise dispensing

Local Control Module

- Accurately controls the amount of material you want to dispense
- Lets you program up to 25 different shot sizes and five sequences
- Precision dispensing means no wasted material
- Results in consistent parts production

Arrow Keys
For easy screen navigation and numerical entry

Soft Keys
For setup and programming

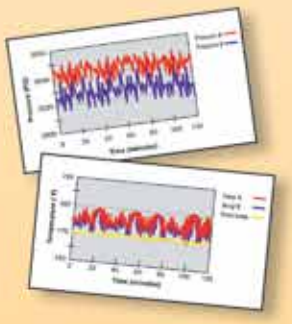
Dispense Button
For remote dispensing capabilities

Mode Button
Choose between three modes: shot size, sequence or manual mode

Optional Data Recorder

- Records actual temperatures and pressures
- Tracks material usage for accurate job tracking and record keeping
- Records diagnostic codes to simplify troubleshooting
- User can output data in spreadsheet format to quickly graph application temperatures and pressures
- Provides data to validate job accuracy

Reactor Data Reporting Kit



Applications

Insulation for coolers and containers
Pre-formed foam block for housing
Picture frames
Cabinets
Solar panels
Insulation for doors and windows
Refrigerator panels
Shutters
Wall and floor panels
Heater tanks
Pipe insulation

Reactor System Components

How to select system components for your Reactor IP

Use this selection tool in conjunction with the part numbers listed on pages 5-7.

1 Select a Reactor IP

Choose from the Reactor IPH-40,
or the Reactor IPH-25 (both hydraulic motors).

KEY FEATURES:

- Quick knock down fluid sections
- Optional data reporting capabilities
- Foam models rated at 2000 psi (138 bar, 13.8 MPa)
- Optional pump sizes available for different ratios

2 Select heated hose

Pressure rating of 2000 psi (138 bar, 13.8 MPa).
Choose 1/4 in (6.4 mm), 1/2 in (12.7 mm)
or 3/8 in (9.5 mm) IDS.

3 Select heated whip hose

Pressure rating of 2000 psi (138 bar, 13.8 MPa).
Choose 1/4 in (6.4 mm), 1/2 in (12.7 mm)
or 3/8 in (9.5 mm) IDS.

4 Select a pour gun

EP Pour Gun:

- Flow rates of 1 to 50 lb/min
  (0.45 to 22.7 kg/min)

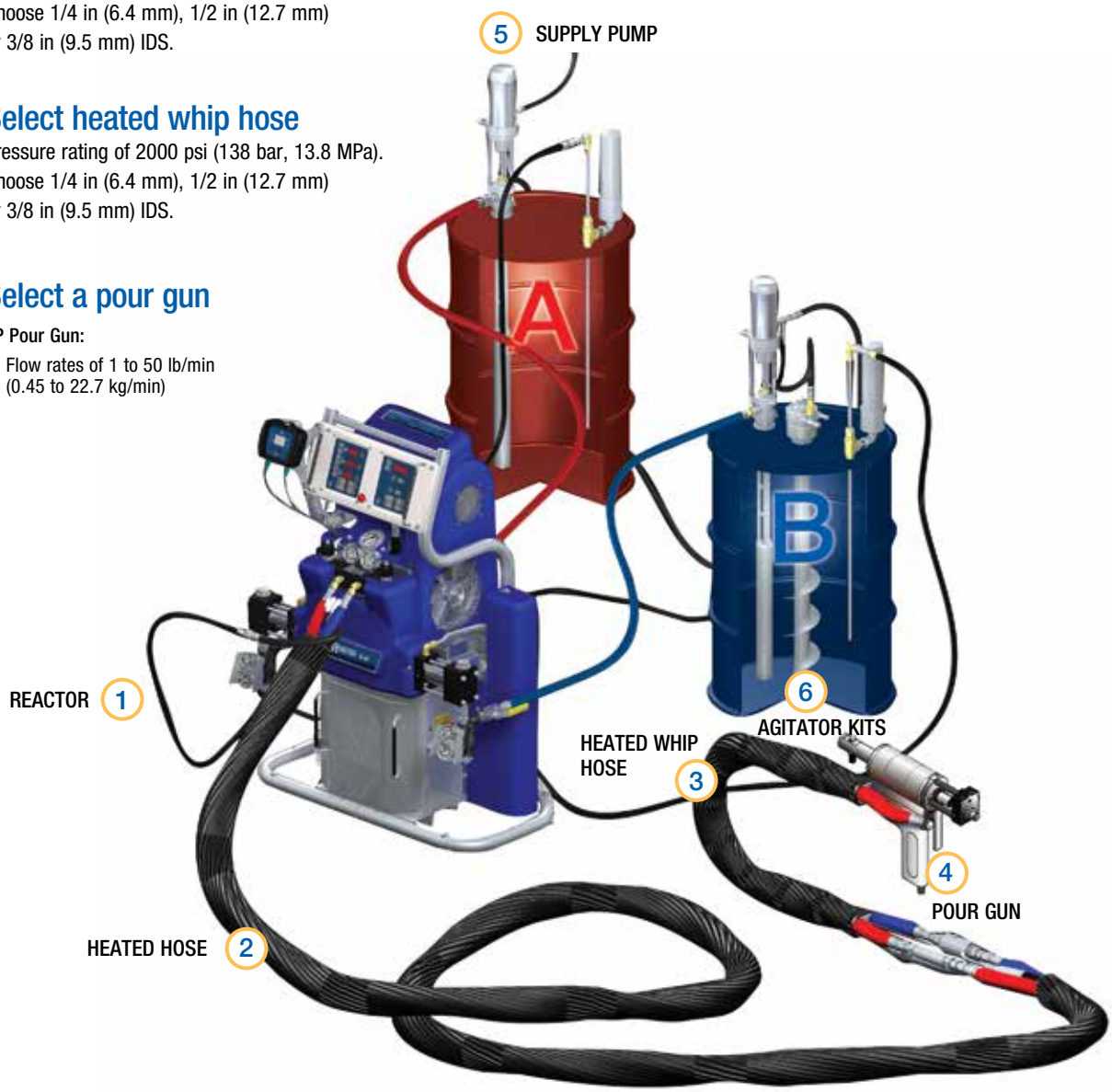
Select supply processing equipment

5 SUPPLY PUMP

Choose from diaphragm or piston pumps for standard materials in drum-mount or wall-mount. Select a 2:1 piston pump for materials with higher viscosities.

6 AGITATOR KITS

Choose a kit to agitate your resin for a consistent coating. Graco's patented Twistork® agitators are very low shear to minimize material frothing.



Technical Specifications

Ordering Information

REACTOR IP FOR IN-PLANT FOAM APPLICATIONS		
	Hydraulic (H-Series)	
Model	**REACTOR IPH-25**	**REACTOR IPH-40**
Max Working Pressure *Actual working pressure depends on flow rate and ratio*	2000 psi (140 bar, 14 MPa)	2000 psi (140 bar, 14 MPa)
Max Hose Length	310 ft (94 m)	410 ft (125 m)
Output	25 lb/min* (11.3 kg/min)	50 lb/min (22.6 kg/min)
Heater Wattage	8000 watts	12,000 or 15,300 watts
Max Ambient Temperature	120°F (49°C)	120°F (49°C)
Max Fluid Temperature	190°F (88°C)	190°F (88°C)
Weight	8 kW: 535 lb (243 kg)	600 lb (272 kg)
Dimensions (H x W x D)	55 x 40 x 22 in (140 x 101 x 56 cm)	55 x 40 x 22 in (140 x 101 x 56 cm)
(1) **Ordering Information**	With 8.0 kW heater: 69A–230V, 1-ph 255824 (Package** w/ EP Pour Gun) 255814 (Bare) 46A–230V, 3-ph 255825 (Package** w/ EP Pour Gun) 255815 (Bare) 35A–400V, 3-ph 255826 (Package** w/ EP Pour Gun) 255816 (Bare)	With 12.0 kW heater: 100A–230V, 1-ph 255821 (Package** w/ EP Pour Gun) 255811 (Bare) With 15.3 kW heater: 71A–230V, 3-ph 255822 (Package** w/ EP Pour Gun) 255812 (Bare) 41A–400V, 3-ph 255823 (Package** w/ EP Pour Gun) 255813 (Bare)
Operation manual	312062/312878	312062/312878
Repair manual	312063	312063

* Tested in oil at 1:1 ratio.

** Package includes 25 ft (7.6 m) heated hose, 10 ft (3 m) heated whip hose and EP Pour Gun.

Ordering Information

To get genuine Graco accessories, see your nearest Graco Distributor, or call Graco at 1-877-844-7226

Reactor IP Accessories

247827	Heater control module
247828	A, B, hose heater power module
247838	Modular heater control to retrofit electric/hydraulic units
255149	Circulation valve – ISO only
255150	Circulation valve – resin only
255148	Circulation valve kit – includes ISO and resin circulation valves, Fusion® grease and grease gun
24A024	Conversion kit, local control module for Reactor H-40 and H-25 *Includes local control module, linear transducer, electrical control box, brackets, data cable, power cable, gun cable and miscellaneous hardware*
15T859	Data cable, 10 ft (3 m) *Connects local control module to the Reactor IP's electrical control box*
15T961	Data cable extension, 25 ft (7.5 m) *Can be combined with 15T859. Connects local control module to the Reactor IP's electrical control box*
121002	Power cable, 5 ft (1.5 m) *Connects local control module to the Reactor IP's electrical control box*
15T960	Power cable, 35 ft (10 m) *Connects local control module to the Reactor IP's electrical control box*
24D679	Gun cable, 10 ft (3 m) *Connects the gun to the Reactor IP's electrical control box*
24E898	Gun cable extension, 25 ft (7.5 m) *Can be combined with 24D679. Connects the gun to the Reactor IP's electrical control box*
24E897	Gun cable extension, 50 ft (15 m) *Can be combined with 24D679. Connects the gun to the Reactor IP's electrical control box*
255817	Local control module

Pumps

Reactor IPH-40 has #140 as standard pumps. Reactor IPH-25 has #120 as standard pumps. Order a different pump size for different flow rates or different ratios. Pumps must be purchased and installed separately.

247371	Proportioner pump kit, size 30
247372	Proportioner pump kit, size 40
247373	Proportioner pump kit, size 48
247374	Proportioner pump kit, size 60
247375	Proportioner pump kit, size 80
247577	Proportioner pump kit, size 88
247376	Proportioner pump kit, size 96
247377	Proportioner pump kit, size 120
247576	Proportioner pump kit, size 140

2 Heated Hoses

Hoses, 2000 psi (138 bar, 13.8 MPa)

246051	3/8 in x 10 ft (9.5 mm x 3 m)
246049	3/8 in x 25 ft (9.5 mm x 7.6 m), with scuffguard™
246046	3/8 in x 50 ft (9.5 mm x 15 m), with scuffguard
246075	3/8 in x 50 ft (9.5 mm x 15 m), no thermocouple wire
246678	3/8 in x 50 ft (9.5 mm x 15 m), with scuffguard
246047	1/2 in x 50 ft (12.7 mm x 15 m)
246076	1/2 in x 50 ft (12.7 mm x 15 m), no thermocouple wire

Hose Accessories

246077	10 ft (3 m) braided polyester mesh scuffguard
246078	50 ft (15 m) braided polyester mesh scuffguard
246456	50 ft (15 m) polyethylene scuffguard
246805	25 ft (7.6 m) braided polyester mesh scuffguard
248921	Heated hose controller, 2700 watt. Allows Reactor heated hose extended past 300 ft (91 m). Requires 200-230 volts at 15 amps
15B296	FTS cable 50 ft (15 m)
261821	Heated hose jumper *(required when not using heated whip)*
15C626	Fluid temperature sensor (FTS) cable 25 ft (7.6 m)
261669	Fluid temperature sensor
15F028	Band heater, 1000 watt, for 55 gal (208 l) drum, 230 volt
261821	Power-lock™ splice kit
15M312	Power-lock splice kit (20-pk) *(enough for 10 hoses)*

3 Heated Whip Hoses

246050	1/4 in x 10 ft (6.3 mm x 3 m)

Ratio Possibilities

	30	40	48	60	80	88	96	120	140
30	1.000	1.333	1.600	2.000	2.667	2.933	3.200	4.000	4.667
40	0.750	1.000	1.200	1.500	2.000	2.200	2.400	3.000	3.500
48	0.625	0.833	1.000	1.250	1.667	1.833	2.000	2.500	2.917
60	0.500	0.667	0.800	1.000	1.333	1.467	1.600	2.000	2.333
80	0.375	0.500	0.600	0.750	1.000	1.100	1.200	1.500	1.750
88	0.341	0.455	0.545	0.682	0.909	1.000	1.091	1.364	1.591
96	0.313	0.417	0.500	0.625	0.833	0.917	1.000	1.250	1.458
120	0.250	0.333	0.400	0.500	0.667	0.733	0.800	1.000	1.167
140	0.214	0.286	0.343	0.429	0.571	0.629	0.686	0.857	1.000

Ratios are approximate.

4 Pour Guns

Graco EP250 Pour Gun

257999	Handheld gun with 0.250 in (6.35 mm) purge rod diameter and 0.031 in (0.79 mm) orifice size
24C932	Auto gun with 0.250 in (6.35 mm) purge rod diameter and 0.031 in (0.79 mm) orifice size
24D680	Fluid Housing Kit, 0.250 in (6.35 mm)

Graco EP375 Pour Gun

24C933	Handheld gun with 0.375 in (9.53 mm) purge rod diameter and 0.047 in (1.2 mm) orifice size
24C933	Auto gun with 0.375 in (9.53 mm) purge rod diameter and 0.047 in (1.2 mm) orifice size
24D681	Fluid Housing Kit, 0.375 in (9.53 mm)

Orifice Kits

In the following table, shaded rows indicate “Super Standard” items that are typically stocked and provide the best delivery dates.

Kit Type and Kit Number					
Impingement Port Size		250 Model Polyol Orifice Kit	250 Model Iso Orifice Kit	375 Model Polyol Orifice Kit	375 Model Iso Orifice Kit
in.	mm				
0.016	0.41	24C805	24D229	24C794	24D245
0.020	0.51	24C751	24D223	24C761	24D239
0.024	0.61	24C806	24D230	24C795	24D246
0.028	0.71	24C807	24D231	24C796	24D247
0.031	0.79	24C752	24D224	24C762	24D240
0.035	0.89	24C808	24D232	24C797	24D248
0.039	0.99	24C809	24D233	24C798	24D249
0.042	1.07	24C810	24D234	24C799	24D250
0.047	1.19	24C753	24D225	24C763	24D241
0.052	1.32	24C811	24D235	35C800	24D251
0.055	1.40	24C812	24D236	24C801	24D252
0.060	1.52	24C754	24D226	24C764	24D242
0.063	1.60	24C813	24D237	24C802	24D253
0.067	1.70	24C755	24D227	24C765	24D243
0.073	1.85	24C815	24D238	24C804	24D254
0.086	2.18	24C756	24D228	24C766	24D244
All 250 Super Standard Orifices		24E250		NA	NA
All 375 Super Standard Orifices		NA	NA	24E251	

Throat Seal Liquid Cartridges

NOTICE

Use only Throat Seal Liquid on the o-rings, seals, and threads of the Throat Seal Liquid cartridge. Fusion grease or other petroleum-based or vegetable-based lubricants will cause cartridge o-rings and seals to swell and stick.

See Throat Seal Liquid MSDS, part 307765.

Kit	Description
24C823	Package of 6 cartridges

5 Supply Pumps

Complete Supply Pump Systems

Includes all air and fluid fittings, and hoses for two pumps.

246369	Complete Husky 515 (246481) supply pump system
246375	Complete Husky 716 (246482) supply pump system
246376	Complete Husky 1040 (246676) supply pump system
247955	Complete T1 (247956) supply pump system
246081	Complete T2 (246898) supply pump system

Supply Pumps with Drum Riser Tube

246366	Husky™ 515 diaphragm pump, acetal bolted design, 100 psi (7 bar, 0.7 MPa) max air inlet, 7.5 gpm @ 60 cpm, 3 cfm per gpm
246367	Husky 716 diaphragm pump, aluminum clamped design, 100 psi (7 bar, 0.7 MPa) max air inlet, 7.5 gpm @ 60 cpm, 3 cfm per gpm
246368	Husky 1040 diaphragm pump for trailer mounts - aluminum, bolted, wall mount, 120 psi (8 bar, 0.8 MPa) max air inlet, 7.5 gpm @ 60cpm, 1 cfm per gpm
295616	T2 2:1 ratio piston pump for higher viscosity materials - 405 psi (28 bar, 2.8 MPa) max fluid psi, 5.0 gpm @ 100 cpm
248825	5:1 Monark drum pump, for high viscosity materials, 900 psi (62 bar, 6.2 MPa) max fluid psi, 10 ft (3 m) hose, 3/4 npt (m), air regulator, manual 310863

Double Supply Pumps with Fluid Plumbing

246481	Husky 515 (246366), 10 ft x 3/4 in (3 m x 19 mm) supply hose
246482	Husky 716 (246367), 10 ft x 3/4 in (3 m x 19 mm) supply hose
246676	Husky 1040 (246368), 10 ft x 3/4 in (3 m x 19 mm) supply hose, 6 ft x 3/4 in (1.8 m x 19 mm) suction hose
246898	T2 2:1 ratio piston pump (295616), 10 ft x 3/4 in (3 m x 19 mm) supply hose

Supply Pump Accessories

246419	55 gal (208 l) feed pump tube with inlet ball check
246477	3/4 in (19 mm) bung return tube with air dryer port
246483	Air distribution kit, 120 psi (8 bar, 0.8 MPa) for two feed pumps and a Fusion gun
246640	Desiccant dryer kit
246978	Reactor manifold circulation kit with return tubes, return fluid lines and dryers
15C381	Desiccant replacement

Manuals

309815	Supply pump
309827	Air supply kit
309852	Circulation and return tube

6 Agitators

Agitator

224854	Twistork CS, air-operated, 1-1/2 HP, 37.3 in (0.9 m) length
235534	Twistork SST, air-operated, 1-1/2 HP, 37.3 in (0.9 m) length
236629	Twistork SST, air-operated with built-in return tube, 3/4 HP, 47.5 in (1.2 m) in length
248824	Twistork CS, air-operated (224854), 1-1/2 HP, 37.3 in (0.9 m) with air connection, hose

ABOUT GRACO

PROVEN QUALITY. LEADING TECHNOLOGY.

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

GRACO LOCATIONS

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